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PATTERNING OF HIGH COERCIVITY
MAGNETIC MEDIA BY ION
IMPLANTATION

ABSTRACT OF THE DISCLOSURE

A servo-patterned magnetic recording medium, comprising:
a magnetic layer having a surface with substantially uniform topography,
the magnetic layer including a data zone and a servo pattern, the servo pattern
5 comprising:
 (a) a first patterned plurality of regions of first, higher values of
 magnetic coercivity H_c and magnetic remanence-thickness product Mrt; and
 (b) a second patterned plurality of ion-implanted regions of second,
 lower values of H_c and Mrt; wherein the second, lower values of H_c and Mrt are
10 sufficiently lower than the first, higher values of H_c and Mrt as to permit sensing
 for enabling accurate positioning of a read/write transducer head in the data zone
 but sufficiently high for providing the medium with thermal stability, high
 amplitude of magnetic transition, and high signal-to-noise ratio.